



<http://www.mn-arts.org/>

March 2019 Edition

March Meeting Minutes

Russ Ramirez, K0WFS, called the meeting to order at 1 PM. 16 members were present.

- The February 2019 Minutes were approved.
- Paul Bushouse, N0TYE, reports that there is \$2301.86 in the checking account. A number of the members paid their dues at the meeting. Thank you. The suggested donation is \$20.

Old Business:

Larry Gaalaas, KB0R, gave us an update on the Minnesota QSO Party. John Krawczak, KJ0P, told us about the Minnetonka Club's participation in the party.

We were reminded that the Build-a-Thon will be held next month between 1 and 4 PM.

New Business:

There was some discussion about how to update the quality of our recorded presentations along with the need to freshen up the web site.

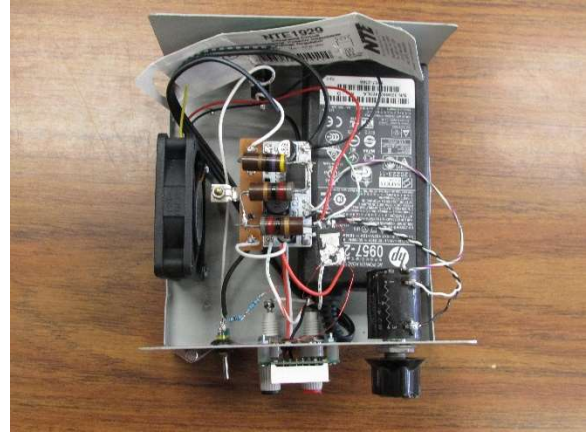
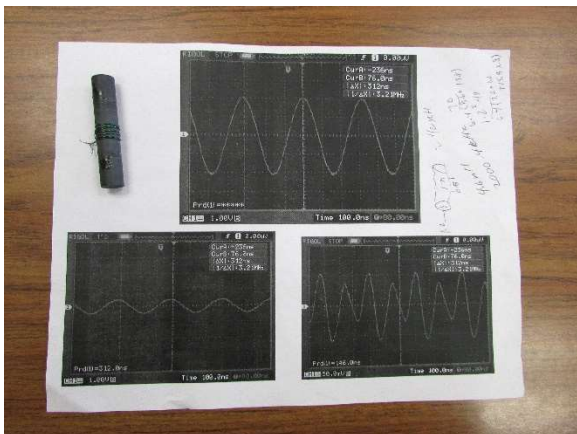
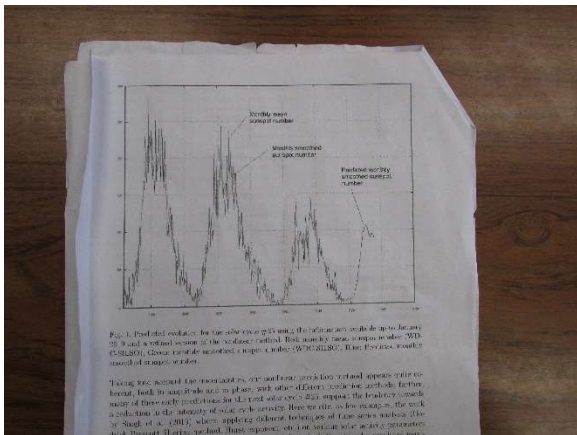
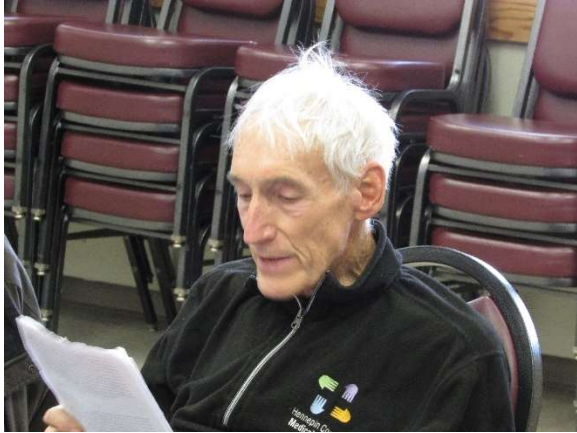
The features of the ICOM IC9700 were discussed.

Show and Tell:

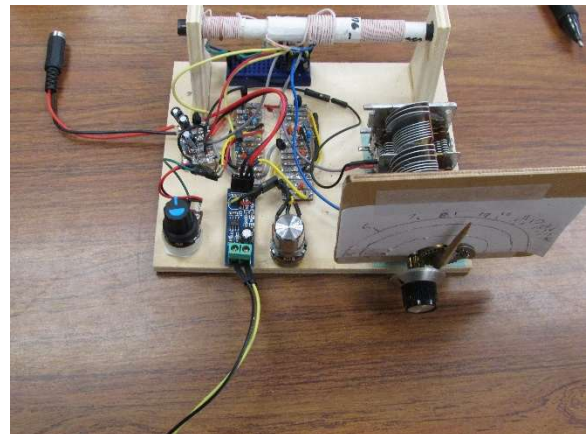
John Krawczak, KJ0P, brought in a high voltage telsa coil he recently finished and described how he made a pickup device to more accurately read the operating frequency. He built this from a ferrite bar with several wire turns. John showed us oscillograms and noted that there is a large difference in output from the pickup device when rotated 90 degrees.

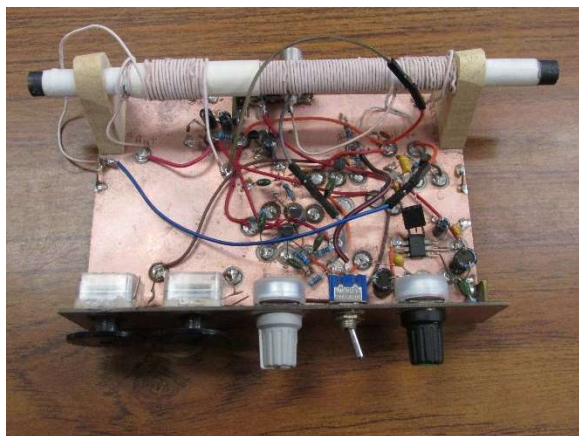
John also brought in information on sun spot prediction.

Also shown was a power supply he built around an old printer power supply that puts out 32V @ 1.5A. John added an adjustable regulator which provides a wide output range.

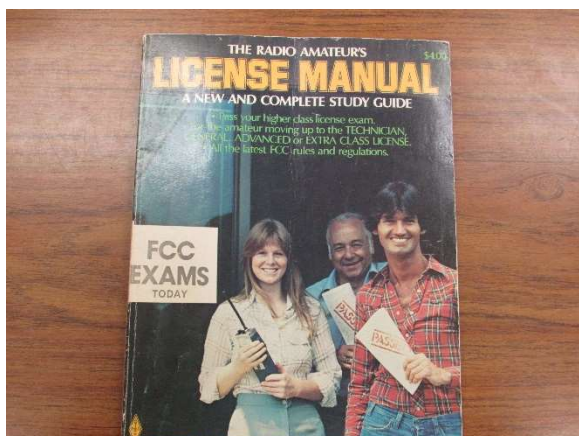


Mike Burk, KD0JXE, brought in two regenerative radios he had built. Mike explained how he has been making his proto boards and passed around samples.





Chuck Stroud, KA8HDE, brought in some books for anyone in the group that might like them. He also brought in his early study manual which he recently came across.



Steve Ulrich, NW0C, brought in an MFJ Grid Dip Meter he recently obtained. He reports that it works well so far and plans to use it on a few projects he has lined up. It tunes between 1.5 MHz and 250 MHz.



March Presentation

Russ Ramirez, K0WFS, presented *Part 1 of PCB Design*. Russ discussed the desirable features of the design software and then reviewed a few popular products now available.

Russ focused in on KiCAD which is what he is currently using. It has a large user group and does what he needs. He then walked us through the workflow process culminating with sending the Gerber file to the manufacturer. Russ mentioned two board manufacturers,

<https://docs.oshpark.com/>

<https://jlcpcb.com/>

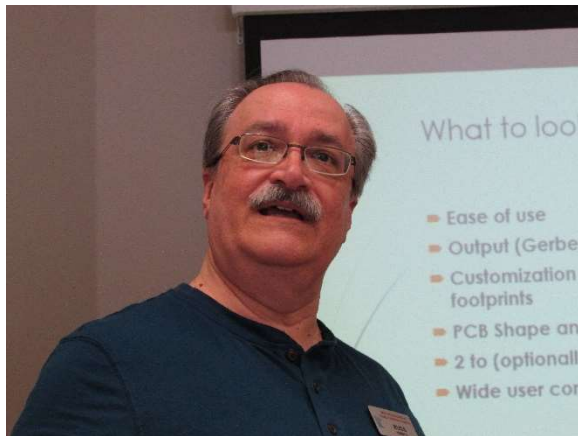
He then showed us how to make a PLCC footprint and encouraged us to work in metric and not mix English & metric. Russ said that we would find a PCB ruler helpful in laying out a design and also showed us a small reference

PCB that he finds helpful. (see <http://www.justgeek.de/>)

Russ also explained that ENIG printing means Gold on Nickel which is much more expensive.

Part 2 of this presentation will be at the Build-a-thon next month.

Great presentation!! Thank you.



Submitted by: Steve Ulrich/NW0C

Club Officers:

President: Russ Ramirez/K0WFS
Vice Pres: Jeremy Mooney/KC0LDI
Secretary: Steve Ulrich/NW0C
Treasurer: Paul Bushouse/N0TYE
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